

Jan Arthur Aune et al.
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REMARKS

Claims 1 and 8 have been amended. Claims 7 and 9 have been canceled, their limitations being inserted into their respective independent claim. Claims 1-6, 8 and 10-11 remain in prosecution. Claims 5-6 and 10 stand objected to as being dependent upon a rejected base claim, but allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

CLAIM REJECTIONS UNDER 35 U.S.C. 102

Claims 1-4, 8 and 11 are rejected as anticipated by Savov et al. '023. Savov et al. relates to a method and an apparatus for refining iron based melts. The apparatus of Savov et al. comprises at least three electrodes, whereof one may be inserted through the sidewall of the furnace. The electrodes are supplied with direct current. The sidewall electrodes of Savov et al. are connected to the DC source and thus do not constitute sidewall contacts as described in the present application. From Figure 3 in Savov et al. it can be seen that the two sidewall electrodes (16) are connected to the DC source, see column 6 at lines 67-68 and column 7 at lines 1-2. Applicants' state in paragraph [0026] of the specification:

"[0026] In operation, alternating electric current is supplied to electrodes 4 through contact clamps 6. The current flows from each electrode 4 through the liquid slag bath to the nearest side wall contact 7 and back through one of the other electrodes 4. Since side wall contacts 7 are interconnected by electrical conductor 9, each of the side wall contacts 7 will always be at the same electric potential and, thus, act as a zero point for the current."

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This is an important limitation now contained in all the amended claims, and must be considered, as the court stated in In re Boc and Duke, 184 U.S.P.Q. 38, 40 (1974 C.C.P.A.):

This court has stated that all limitation must be considered and that it is error to ignore specific limitations distinguishing over the references. In re Saether, 181 U.S.P.Q. 36, 39 (1974-C.C.P.A.); In re Glass, 176 U.S.P.Q. 489, 491 (1973 C.C.P.A.).”

Claims 5, 6 and 10 are even more clearly not anticipated.

Applicants respectfully submit that Savov et al. does not teach or anticipate electrode arrangement of 1-4, 8 and 11.

CLAIM REJECTIONS UNDER 35 U.S.C. 103

Claims 7 and 9 have been cancelled and added to their respective independent claims 1 and 8. They were rejected as unpatentable over Savov et al. in view of Paton et al. '200. Paton et al. does not show side electrode contacts, for example, carbon. Paton et al. relates to a quite different technical field, namely electrosag remelting where consumable electrodes made from the metal to be remelted are inserted into a mould. When AC current is supplied to the electrodes and metal melts at the electrode tips, the molten metal is refined in a slag layer and solidified in the mould. Even if Savov is combined with Paton (AC power) one will not arrive at the present invention of amended claims 1 and 8 and claims dependent thereon. Also, if one is deliberately using D.C. current it would not be obvious to substitute A.C. current.

Case law dictates that in proceeding from the prior art to the invention claims, one cannot base obviousness of what a person skilled in the art might try, or find

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obvious to try, but must consider what the prior art would have led a person to do, as stated in In re Tomlinson, Hall and Geigle, 150 U.S.P.Q. 623,626 (C.C.P.A. 1966):

Our reply to this view is simply that it begs the question; which is obviousness under section 103 of compositions and methods, not of the direction to be taken in making efforts or attempts. Slight reflection suggests, we think that there is usually an element of 'obviousness to try' in any research endeavor, that it is not undertaken with complete blindness but rather with some semblance of a chance of success, and that patentability determinations based on that as a test would not only be marked deterioration of the entire patent systems as an incentive to invest in those efforts and attempts which go by the name of 'research'.

And also affirmed in The Gillette Co. v. S.C. Johnson and Son, Inc., 16 U.S.P.Q. 2d 1923, 1928 (Fed. Cir. 1990). Also, as stated by the court in In re Regal, 18 U.S.P.Q. 136, 139 (C.C.P.A. 1975):

"As we have stated in the past, there must be some logical reason apparent from positive, concrete evidence of record which justifies an combination of primary and secondary references. In re Sterniski, 170 U.S.P.Q. 343 (C.C.P.S. 1971). Further, as we stated in In re Bergel, 130 U.S.P.Q. 206 (C.C.P.A. 1961); 'The mere fact that it is possible to find two isolated disclosures which might be considered in such a way to produce a new compound does not necessarily render such production obvious unless the art also contains something to suggest desirability of the proposed combination'."

and also affirmed in In re Gergen, 11 U.S.P.Q. 2d 1652, 1653 (Fed. Cir. 1989), and Symbol Technologies Inc. v. Opticon Inc., 19 U.S.P.Q. 2d 1241, 1246 (Fed. Cir. 1991).

Applicants completely disagree that substitution of the A.C. power from the completely different system of Paton et al. into Savor et al. "...is within the purview of obviousness to one having ordinary skill in the art. Such a substitution would at best be

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an obvious to try situation and contrary to case law mandate, nor is there any showing to suggest the desirability of the proposed combination. A substitution of teachings of Paton et al. could easily also eliminate the side contacts of FIGS. 1 and 3 of Savov et al., resulting solely in the embodiments shown in FIGS. 2 and 4 of Savov et al.

Applicants respectfully submit that neither Savov et al. '023 nor Paton et al. '200 taken either alone or in combination would teach or make obvious to one skilled in the art at the time the invention was made, the invention of amended claims 1-6, 8 and 10-11. Applicants note patents to Paton et al. '075 and Medovar et al. '092, considered by the Examiner, but not cited against the claims and submits that they do not supply what Savov et al. '023 and Paton et al. '200 lack to make applicants amended claims obvious.

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SUMMARY

All outstanding issues are believed to have been addressed. In view of the foregoing amendments and arguments, applicants respectfully submit that all pending claims, claims 1-6, 8 and 10-11 are in condition for allowance; and applicants respectfully request reconsideration and allowance of those claims.

Respectfully submitted,

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